

Reception

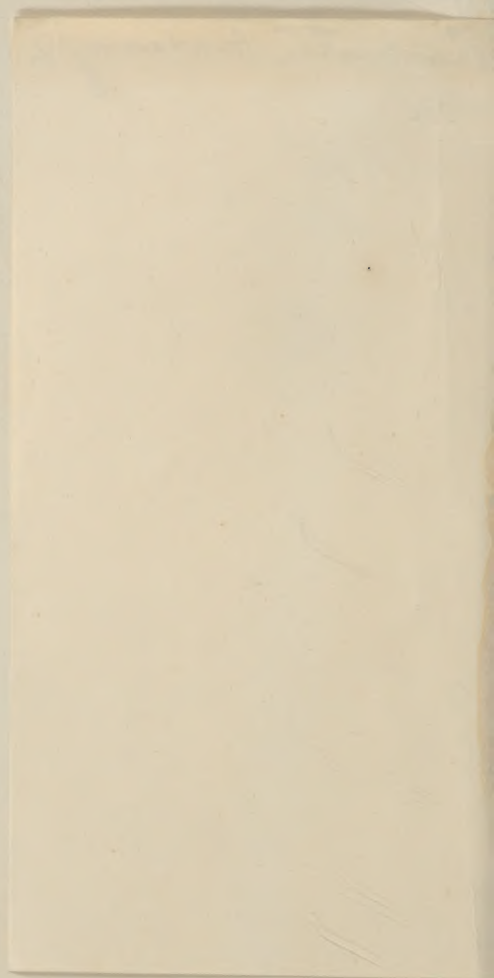
(507. 207)

Rochester Academy of Science

1881



Rochester Academy H.



✓  
ROCHESTER ACADEMY OF SCIENCE.

CATALOGUE OF EXHIBITS,

—AT THE—

THIRD ANNUAL RECEPTION

FREE ACADEMY HALL, JUNE 20, 1881.

RECEPTION COMMITTEE:

Myron Adams,

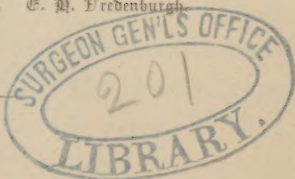
W. F. Atwood,

Adelbert Cronise,

Charles Forbes,

Morace McGuire,

E. M. Fredenburgh.



ROCHESTER, N. Y.  
PRESS OF FRANK D. PHINNEY.  
1881.

THE Rochester Microscopical Society was organized January 13, 1879, by a few gentlemen interested in scientific studies. The question of organizing an Academy of Science was considered; but it was deemed best to begin with that department in which the most interest was then manifested, viz., microscopy, and afterwards extend the scope of the society, if desired. The Society grew rapidly, and at the end of two years was the largest organization of the kind in the United States.

March 14, 1881, the suggested change was effected, the scope of the Society extended, its name changed, and its Constitution and By-Laws revised. Sections have been formed in several departments, and considerable work is being done. The society was incorporated May 14, 1881, as the ROCHESTER ACADEMY OF SCIENCE.

# Catalogue of Exhibits.

## SECTION OF MICROSCOPY.

Exhibitors must be at the Hall with their microscopes at 7 o'clock.

Where two objects are to be exhibited with one microscope, the first will be shown from 8 to 9 o'clock, and the second from 9 to 10 o'clock.

### Myron Adams.

#### QUEEN'S STUDENT'S MICROSCOPE.

Stomach of *Apis mellifica* (honey bee), in balsam, Queen's  $\frac{1}{2}$  in.  $\times$  80

Head of *Musca domestica* (house fly), dry, opaque,  
Hartnack's 2 in.  $\times$  20

#### GUNDLACH'S STUDENT'S MICROSCOPE.

Head of *Papilio Turnus* (butterfly), from Monroe Co., dry,  
Hartnack's 2 in.  $\times$  20

Ganglia and nerves of *Apis mellifica* (honey bee), in balsam,  
Queen's  $\frac{1}{2}$  in.  $\times$  80

### John G. Allen.

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

*Cicindela vulgaris* (tiger beetle), Gundlach's 5 in.  $\times$  10

Elytron of *cicindela vulgaris* (wing case of tiger beetle),  
Gundlach's  $\frac{3}{4}$  in.  $\times$  80

#### GUNDLACH'S STUDENT'S MICROSCOPE.

Seed of *Rhus typhina* (Stag-horn Sumac), from Irondequoit,  
dry, Gundlach's  $1\frac{1}{2}$  in.  $\times$  40

*Cymatopleura* (diatoms), from Hemlock Lake, in balsam,  
Gundlach's  $\frac{1}{4}$  in.  $\times$  350

**Charles E. Alling.**

## WALES' NEW WORKING MICROSCOPE.

Pediculus pubis (crab louse), from Buffalo, N. Y., in balsam,	Gundlach's 2 in. × 40
Longitudinal section of silicified wood, from Colorado,	Gundlach's 2 in. × 40

**James W. Allis.**

## QUEEN &amp; CO'S STUDENT'S MICROSCOPE.

Leaves of <i>Malvastrum coccineum</i> ,	B. & L. $\frac{3}{4}$ in. × 130
Pediculus humanus capitis (head louse),	B. & L. $\frac{3}{4}$ in. × 130

**F. D. Andrew.**

## BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

<i>Daphnia pulex</i> and young (water flea), from Monroe County,	
in glycerine,	B. & L. $\frac{3}{4}$ in. × 75
Foot of <i>Musca domestica</i> (house fly), in balsam,	B. & L. $\frac{3}{4}$ in. × 75

**H. F. Atwood.**

## BULLOCK'S BINOCULAR MICROSCOPE.

Infusoria, from Hemlock water, living,	B. & L. $\frac{4}{16}$ × 120
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**Edward Bausch.**

## BAUSCH &amp; LOMB'S INVESTIGATOR MICROSCOPE.

<i>Amphipleura pellucida</i> , in balsam,	B. & L. $\frac{1}{8}$ in. × 780
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## BAUSCH &amp; LOMB'S TRICHINOSCOPE.

<i>Trichina spiralis in situ</i> ,	B. & L. $\frac{1}{8}$ in. × 30
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## BAUSCH &amp; LOMB'S COMPACT DISSECTING AND MOUNTING MICROSCOPE.

Scissor bug,	B. & L. 1 in. × 10
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## BAUSCH &amp; LOMB'S LIBRARY MICROSCOPE.

<i>Pulex irritans</i> (common flea),	B. & L. $\frac{3}{4}$ in. $\times$ 125
Micro-photograph—The creed,	B. & L. $\frac{3}{4}$ in. $\times$ 125

**E. E. Bausch.**

## BAUSCH &amp; LOMB'S FAMILY MICROSCOPE.

<i>Trichina spiralis</i> ,	B. & L. $\frac{1}{2}$ in. 100
Micro-photograph—Imperial Family of Russia,	B. & L. 1 in. 50

## BAUSCH &amp; LOMB'S LIBRARY MICROSCOPE.

Foot of <i>Dytiscus</i> (water beetle),	B. & L. 2 in. 40
Lancet and proboscis of <i>Culex pipiens</i> (mosquito), in balsam,	B. & L. $\frac{1}{2}$ in. $\times$ 100

## BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Spinarets of spider, in glycerine,	B. & L. $\frac{3}{4}$ in. $\times$ 70
Proboscis of <i>Musca vomitoria</i> (blow fly), in balsam,	B. & L. $\frac{3}{4}$ in. $\times$ 70

**J. J. Bausch.**

## BAUSCH &amp; LOMB'S FAMILY MICROSCOPE.

Proboscis of <i>Musca vomitoria</i> (blow fly),	B. & L. $\frac{3}{4}$ in. $\times$ 70
Eggs of <i>Cimex lectularius</i> (bed bug),	B. & L. $\frac{3}{4}$ in. $\times$ 70

## BAUSCH &amp; LOMB'S RESEARCH MICROSCOPE.

Gold pyrites, from California,	B. & L. 2 in. $\times$ 30
Curious objects in coal ashes (in motion),	B. & L. 1 in. $\times$ 55

## BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Group of epidermal plates and hooks,	B. & L. 1 in. $\times$ 46
Starch of lentils, with polariscope,	B. & L. $\frac{3}{4}$ in. $\times$ 50

## BAUSCH &amp; LOMB'S INVESTIGATOR MICROSCOPE.

Butterfly scales and hairs arranged as a basket of flowers with insects,	B. & L. 3 in. $\times$ 30
Wire silver, from New Granada,	B. & L. 3 in. $\times$ 30

**J. T. Brownell.**

## BAUSCH &amp; LOMB'S STUDENT'S MICROSCOPE.

Fossiliferous Limestone, from England, in balsam, B. & L. 2 in.  $\times$  46  
 Pollen of Caryophyllaceæ agrostemmagithago (corn cockle),  
 from Wayne County, B. & L.  $\frac{1}{2}$  in.  $\times$  200

**Miss E. Augusta Chapman.**

## BECK'S MICROSCOPE.

Trout's egg, showing complete circulation of blood in the  
 embryo, from Caledonia Trout Ponds, Beck's 2 in.  $\times$  40

**Adelbert Cronise.**

## GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Compound eye of Homarus Americanus (lobster),  
 showing the square ocelli of crustaceans, Gundlach's  $\frac{2}{3}$  in.  $\times$  130  
 Longitudinal section of Juniperus Virginiana (red cedar),  
 in balsam, Gundlach's  $\frac{1}{2}$  in.  $\times$  200

## BAUSCH &amp; LOMB'S STUDENT'S MICROSCOPE.

Compound eye of Musca domestica (house fly), showing  
 the hexagonal ocelli of insects, Gundlach's  $\frac{1}{2}$  in.  $\times$  200  
 Follicle (root) of human hair, Gundlach's  $\frac{1}{2}$  in.  $\times$  130

## ZENTMAYER'S NEW ARMY HOSPITAL BINOCULAR MICROSCOPE.

Elytron of Cyphus Vanhegeni (wing case of hunchback  
 beetle), dry, from South America, Zentmayer's  $\frac{3}{8}$  in.  $\times$  75  
 Transverse section of Abies Canadensis (hemlock), in balsam,  
 Zentmayer's  $\frac{3}{8}$  in.  $\times$  75

**Charles E. Darrow.**

## QUEEN'S STUDENT'S BINOCULAR MICROSCOPE.

Infusoria from Canandaigua Lake, living, Gundlach's  $\frac{1}{2}$  in.  $\times$  75

## Thomas Dransfield.

### BAUSCH & LOMB'S PHYSICIAN'S MICROSCOPE.

Tongue and antennæ of butterfly, in balsam.	B. & L. $\frac{1}{4}$ in. $\times$	70
Scales of <i>Lepisma saccharina</i> (sugar insect), dry.	B. & L. $\frac{1}{4}$ in. $\times$	375

### BAUSCH & LOMB'S INVESTIGATOR MICROSCOPE.

Parasite of chaffinch, in balsam.	B. & L. $\frac{1}{4}$ in. $\times$	130
Wing of butterfly, opaque	B. & L. $\frac{1}{4}$ in. $\times$	70

### BAUSCH & LOMB'S INVESTIGATOR MICROSCOPE.

Scale of <i>Lepidocryptis curvicaulis</i> , dry.	B. & L. $\frac{1}{5}$ in. $\times$	250
Stem of <i>Aristolochia diplo</i> , stained	B. & L. $\frac{1}{4}$ in. $\times$	130

## S. A. Ellis.

### GUNDLACH'S PHYSICIAN'S MICROSCOPE, No. 1.

Gastric teeth of <i>Blatta Americana</i> (cockroach), in balsam.	Gundlach's $1\frac{1}{2}$ in. $\times$	30
(Cocoons of <i>Trogus atropas</i> (Ichneumon fly), Gundlach's $1\frac{1}{2}$ in. $\times$		30

## Gustave Erbe.

### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Eggs of <i>Tinea vestimentalis</i> (clothes moth).	Gundlach's $\frac{1}{5}$ in. $\times$	250
Tongue of drone fly, in balsam.	Gundlach's 2 in. $\times$	20

## J. H. Fisher.

### CROUCH'S IMPROVED STUDENT'S BINOCULAR MICROSCOPE

Intusoria, living.	Spencer's $\frac{1}{5}$ in. $\times$	250
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## Charles Forbes.

THE "SAM WELLER MICROSCOPE," for looking through opaque objects

## **Frank French.**

### **WORKING MICROSCOPE.**

Synedra superba (diatom), on Marine Algae, dry.

Gundlach's  $\frac{1}{2}$  in.  $\times$  100

Corrugated gold, dry.

Gundlach's 1 in.  $\times$  50

## **Benj. O. Hough.**

### **BAUSCH & LOMB'S INVESTIGATOR MICROSCOPE.**

Scale of Salmo amethystus (trout), dry. Gundlach's 1 in.  $\times$  35

Seed of Taraxacum dens-leonis (dandelion), dry. B. & L.  $\frac{1}{2}$  in.  $\times$  70

## **C. A. Kenyon.**

### **BECK'S NATIONAL MICROSCOPE.**

Eye of Musca vomitoria (blow fly), in balsam. Beck's 1 in.  $\times$  80

Red protococcus, in glycerine. Beck's 1 in.  $\times$  80

## **Richard H. Lansing.**

### **BAUSCH & LOMB'S PHYSICIAN'S MICROSCOPE.**

Pond life—hydra, etc., B. & L.  $\frac{1}{2}$  in.  $\times$  130

Section of Ricinus communis (castor oil plant), in balsam.

B. & L.  $\frac{1}{2}$  in.  $\times$  130

## **Wm. H. Learned.**

### **BAUSCH & LOMB'S LIBRARY MICROSCOPE.**

Crystals of copper, opaque. B. & L. 2 in.  $\times$  30

Parasite of bumble bee, dry. B. & L.  $\frac{1}{2}$  in.  $\times$  130

## **J. Edw. Line.**

### **BAUSCH & LOMB'S LARGE STUDENT'S MICROSCOPE.**

Sawdust of bone, dry. B. & L. 2 in.  $\times$  60

Globular sand (oolitic), from Great Salt Lake, dry. B. & L. 2 in.  $\times$  60

**Henry C. Maine.****GUNDLACH'S SOCIETY MICROSCOPE.**

Arranged diatoms in balsam.	Gundlach's $\frac{1}{4}$ in. $\times$ 130
Test plate, by exhibitor, dry.	Gundlach's $\frac{1}{8}$ in. $\times$ 150

**GUNDLACH'S NEW PHYSICIAN'S MICROSCOPE No. 1.**

Infusoria from Genesee River, living.	Gundlach's $\frac{1}{4}$ in. $\times$ 300
<i>Heliopelta Metii</i> , from Nottingham, Md., in balsam.	Gundlach's $\frac{1}{8}$ in. $\times$ 500

**Horace McGuire.****BAUSCH & LOMB'S STUDENT'S MICROSCOPE.**

Infusoria from Erie Canal feeder, living.	B. & L. $\frac{3}{4}$ in. $\times$ 150
Spicula of <i>Septogorgia</i> (sea fan).	B. & L. $\frac{3}{4}$ in. $\times$ 150

**E. A. McMath.****GUNDLACH'S STUDENT'S MICROSCOPE.**

Feather of <i>Trochilus colubris</i> (humming bird), in balsam	
opaque,	Gundlach's $\frac{3}{4}$ in. $\times$ 75

**C. C. Merriman.****BECK'S BEST BINOCULAR.**

Shell sand, from Bermuda, opaque.	Wales' 1 $\frac{1}{2}$ in. $\times$ 30
Transverse section of spine of <i>Echinus</i> (sea urchin), in balsam,	Wales' 1 $\frac{1}{2}$ in. $\times$ 30

**CROUCH'S STUDENT'S BINOCULAR.**

Crystal sand, from Florida, opaque.	Wales' $\frac{3}{8}$ in. $\times$ 15
Möller's photograph diatom plate.	B. & L. $\frac{1}{4}$ in. $\times$ 100

**A. A. Morgan.****YAWMAN & ERBE'S MICROSCOPE.**

Fossil diatoms from Richmond, Va., arranged, Gundlach's  $\frac{7}{8}$  in.  $\times$  70

Diatoms arranged by H. C. Maine, with mechanical finger.

Gundlach's  $\frac{3}{4}$  in.  $\times$  70

**Wm. C. Munroe.****COOK & SON'S OFFICE MICROSCOPE.**

Crystals of triple phosphate, with dark field illumination.

Cook & Son's  $\frac{1}{4}$  in.  $\times$  275.

Wing of Burnet moth, in balsam.

Cook & Son's  $\frac{1}{4}$  in.  $\times$  275

**A. B. Newman.****BAUSCH & LOMB'S EDUCATIONAL MICROSCOPE.**

Section of bloodroot, in balsam.

Gundlach's  $\frac{5}{8}$  in.  $\times$  70

Crystals of tin, voltaic deposit, dry.

Gundlach's  $\frac{3}{4}$  in.  $\times$  20

**POALK'S ACME MICROSCOPE.**

Transverse section of spine of Echinus (sea urchin), dry,

opaque,

Spencer's 1 in.  $\times$  50

Juglans nigra, in balsam.

Spencer's  $\frac{3}{4}$  in.  $\times$  100

**BAUSCH & LOMB'S STUDENT'S MICROSCOPE.**

Section of comb of chicken, in balsam.

Spencer's  $\frac{1}{2}$  in.  $\times$  100

Transverse section, petiole of palm, in balsam, Gundlach's  $\frac{3}{4}$  in.  $\times$  100

**C. F. Paine.****BAUSCH & LOMB'S STUDENT'S MICROSCOPE.**

Sporangia (spores) of fern, unmounted.

B. & L.,  $\frac{5}{8}$  in.  $\times$  130

**William M. Rebasz.****BAUSCH & LOMB'S UNIQUE MICROSCOPE.**

Spores of <i>Asthurites ciliaris</i> , in glycerine,	B. & L. $\frac{3}{4}$ in. $\times$ 280
Edelweiss, from the Alps, Switzerland, dry.	B. & L. 2 in. $\times$ 20

**BAUSCH & LOMB'S INVESTIGATOR MICROSCOPE.**

Stellate hairs of <i>Deutzia scabra</i> , in form of the constellation	
Orion, on demar and ultramarine,	B. & L. 2 in. $\times$ 20
Corpuscles of human blood, dry,	Gundlach's $\frac{1}{10}$ in. $\times$ 1000

**Daniel Richards.****WORKING MICROSCOPE**

Desmids in swamp water,	B. & L., $\frac{1}{2}$ in. $\times$ 100
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**Charles W. Seelye.****BAUSCH & LOMB'S STUDENT'S MICROSCOPE.**

Transverse section of wood,	B. & L. $\frac{3}{4}$ in. $\times$ 130
Stomata (breathing pores) of leaves,	B. & L. $\frac{3}{4}$ in. $\times$ 130

**Lewis R. Sexton.****FIFTEEN GUNDLACH'S MICROSCOPES.**

Collection of 30 slides of minerals, loaned by Prof. Albert	
H. Chester, of Hamilton College.	

**S. McK. Smith.****POALK'S ACME BINOCULAR MICROSCOPE.**

Micro-photograph—Times newspaper, 360,000 words,	Gundlach's $\frac{1}{2}$ in. $\times$ 200
Arranged diatoms,	Gundlach's $\frac{1}{2}$ in. $\times$ 200

**Mrs. William Streeter.**

## GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Stellate hairs of *Shepherdia Canadensis*, in balsam.

with polarized light,

B. & L. 2 in.  $\times$  60*Psilota hypnoides* (sea weed), dry, from California.Gundlach's 3 in.  $\times$  50**William Streeter.**

## BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Navicula rhomboides, in balsam.

Gundlach's  $\frac{1}{2}$  in.  $\times$  1000

Amphipleura pellucida, in balsam (H. C. Maine's test plate).

Gundlach's  $\frac{1}{8}$  in.  $\times$  1600**E. H. Vredenburg.**

## BECK'S LARGE, BEST BINOCULAR.

Spicules of *Gorgonia* (sea fan).Beck's 1 $\frac{1}{2}$  in.  $\times$  35

Esculine (alkaloid from bark of horse chestnut), with

polarized light,

Beck's 1 $\frac{1}{2}$  in.  $\times$  35**Chas. E. Walker.**

## GUNDLACH'S SOCIETY MICROSCOPE No. 3.

Circulation of blood in foot of frog.

Gundlach's  $\frac{1}{2}$  in.  $\times$  150**Godfrey Walker.**

## CROUCH'S BINOCULAR.

Circulation of blood in foot of frog.

Gundlach's  $\frac{1}{2}$  in.  $\times$  100**John Wehle.**

## BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Carbonate of lime, with polariscope.

B. & L.  $\frac{1}{4}$  in.  $\times$  70*Isthmia nervosa*, *in situ* on sea weed, opaque.B. & L.  $\frac{1}{4}$  in.  $\times$  100



**J. P. Wheeler.****McALLISTER'S PROFESSIONAL MICROSCOPE.**

Specimens of well water from East Brighton, showing im-  
 purities, Wales'  $\frac{3}{4}$  in.  $\times$  150

**Miss Ella A. Wray.****GUNDLACH'S STUDENT'S MICROSCOPE.**

Transverse section of grape vine, with micro photograph,  
Gundlach's 2 in.  $\times$  25  
 Transverse section, spine of Echinus (sea urchin), with  
Gundlach's 2 in.  $\times$  25  
 micro photograph.

**Henry Wray, Jr.****GUNDLACH'S PHYSICIAN'S MICROSCOPE.**

Live fly on stage forceps, Gundlach's 2 in.  $\times$  25  
 Crystallized copper Gundlach's 2 in.  $\times$  25

**Philip H. Yawman.****GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.**

Tingis hyalina, Gundlach's 3 in.  $\times$  17  
 Head of crane fly, Gundlach's 2 in.  $\times$  25

## SECTION OF ADULTERATIONS.

**Henry Lomb.**

BAUSCH &amp; LOMB'S INVESTIGATOR MICROSCOPE.

Adulterations in coffee, B. & L.  $\frac{3}{4}$  in.  $\times$  100

BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Oleomargarine, B. & L.  $\frac{1}{2}$  in.  $\times$  150

BAUSCH &amp; LOMB'S RESEARCH MICROSCOPE.

Butter, B. & L.  $\frac{1}{2}$  in.  $\times$  150**Charles Forbes.**

Chemical tests for—

Mineral and organic impurities	Glucose in cane sugar,
in well water,	Oleomargarine and butter,
Adulterations in milk,	Candy adulterations, and
Alum in Baking Powder,	Silk weighted with chemicals.

**Joseph N. Levi.**

BAUSCH &amp; LOMB'S LARGE STUDENT'S MICROSCOPE.

Fibres of Cotton, B. & L.  $\frac{3}{4}$  in.  $\times$  150

BAUSCH &amp; LOMB'S INVESTIGATOR MICROSCOPE.

Fibres of Wool, B. & L.  $\frac{3}{4}$  in.  $\times$  150

BAUSCH &amp; LOMB'S PHYSICIAN'S MICROSCOPE.

Fibres of wool and cotton mixed, B. & L.  $\frac{3}{4}$  in.  $\times$  150

Chemical test for showing the amount of cotton in alleged woolen goods.

**Frank D. Phinney.**

GUNDLACH'S STUDENT'S MICROSCOPE.

Pure cotton blotting paper, Gundlach's  $\frac{3}{4}$  in.  $\times$  150

GUNDLACH'S STUDENT'S MICROSCOPE.

Cotton and wood blotting paper, Gundlach's  $\frac{3}{4}$  in.  $\times$  150

GUNDLACH'S STUDENT'S MICROSCOPE.

All wood blotting paper, Gundlach's  $\frac{3}{4}$  in.  $\times$  150

## SECTION OF ASTRONOMY.

**Charles Forbes.**

Tellurian globe, new, invented by exhibitor

**Henry C. Maine.**

Three-inch Bardon refractor telescope, with Gundlach's periscopic eye-pieces.

Three colored views of Jupiter, showing changes in the belt system, and the great red spot.

View of Mars during opposition, in November, 1879

View of the planet Venus.

**Theron E. Parsons.**

Four-inch refractor telescope, Alvan Clark & Son's, with Gundlach's periscopic eye-pieces.

**Wm. M. Rebasz.**

Three and one half inch refractor telescope

Mars in 1877, three views.

Mars and Saturn in conjunction, 1877.

Jupiter, 1876.

Telescopic appearance of Sun, June 12, 1881

**William Streeter.**

Four-inch refractor telescope, Alvan Clark & Son, with Gundlach's periscopic eye-pieces.

## SECTION OF BOTANY.

Named species of the flowers, grasses and ferns of Monroe County collected and mounted by the members of the Section.

Exhibit of plants of Monroe County now in flower, in pots, named, by the Section.

Petrified wood from Yellowstone Park, donated to the Academy by Geo. E. Merchant.

**Frances H. Cogswell.**

Transverse section of bark of *Sequoia gigantea* (mammoth tree of California).

Lichen, *in situ*, from California.

**Frank W. Hawley.**

Edelweiss, from the Alps, Switzerland.

Petrified wood, from Bad Lands, Dakota Ter.

**C. C. Merriman.**

50 species of marine algae, from the Bermudas.

**Daniel Richards.**

Wild flowers from Wayne County.

**Chas. E. Walker.**

*Cereus grandiflorus* (night blooming *Cereus*), prepared.

## SECTION OF ENTOMOLOGY.

**The Bunker Collection.**

Presented to the Academy by Robert Bunker

**Myron Adams.**

Centipede from New Mexico.

*Tarantula lycosa*, from New Mexico

Air bug, from Mexico.

Tray of insects, mounted in balsam.

Monroe County insects—a day's collection

**H. Roy Gilbert.**

50 luna catterpillars, feeding.

## SECTION OF TAXIDERMV.

**Adelbert Cronise.**

*Diodon Hystrix* (sea porcupine), from West Indies.

**Harry E. Summers.**

*Bonasa umbellus* (ruffed grouse), from Brockport, N. Y., male and female.

*Oryx Virginianus* (quail), from Brockport, N. Y., male and female.

*Scelopax major* (woodcock), from Brockport, N. Y., male and female.

**Frederic S. Webster.**

*Ardea candidissima* (snowy heron), from Florida—medallion.

*Lophortyx pictus* (California quail).

*Paradisæa raggania* (red bird of paradise), from New Guinea, male and female.

*Felis leo* (lion), from Africa, male, one hour old.

*Felis leo* (lion), from Africa, female, three days old.

*Felis leopardus* (leopard), from India, male, three days old.

*Felis concolor* (panther), from America, male, three days old.

*Podiceps griseigena* (red necked grebe), from America.

*Melanerpes erythrocephalus* (red-headed woodpecker), black specimen, from America.

*Trochilus colubris* (ruby-throated humming bird), from America, nest of eggs.

*Chlorostilbon phæthon*, from South America, male and female, with nest of eggs.

*Heliomaster angelæ*, from South America, male and female, and nest of eggs.

*Ibis rubra* (scarlet ibis), from South America, male—medallion.

*Ibis albus* (white ibis), from Florida, male—medallion.

## CERTIFICATE OF INCORPORATION.

Myron Adams, President; H. Franklin Atwood, Vice-President; Charles E. Rider, Treasurer; Henry C. Maine, Secretary; Adelbert Cronise, Corresponding Secretary; Samuel A. Lattimore, William Streeter and Cyrus F. Paine, Trustees, and many members, all persons of full age and citizens of the United States, and a majority of whom are citizens of the State of New York, hereby organize themselves into a body corporate pursuant to the provisions of chapter 319 of the laws of 1848, and the several acts amendatory thereof.

The name or title by which said association shall be known in law shall be Rochester Academy of Science.

The particular business and object of said association shall be to promote scientific study and research, and especially a thorough knowledge of the natural history of that part of the State of New York in the vicinity of Rochester, and to make permanent collections of objects illustrative of the different branches of science.

The number of Directors to manage said association shall be eight, and shall consist of the President, Vice-President, Treasurer, Secretary, Corresponding Secretary, and three Trustees, who shall be elected at the first regular meeting in January of each year.

The names of the directors of said association for the first year beginning January 1, 1881, are Myron Adams, H. Franklin Atwood, Charles E. Rider, Henry C. Maine, Adelbert Cronise, Samuel A. Lattimore, William Streeter and Cyrus F. Paine.

The business of said association is to be conducted, and its principal office located within the City of Rochester and County of Monroe.

(Signed)

MYRON ADAMS,  
H. F. ATWOOD,  
CHARLES E. RIDER,  
H. C. MAINE,  
ADELBERT CRONISE,  
S. A. LATTIMORE,  
WILLIAM STREETER,  
CYRUS F. PAINE.

State of New York, }  
 County of Monroe, } ss.  
 City of Rochester, }

On this 11th day of May, 1881, before me, the subscriber, personally appeared Myron Adams, H. Franklin Atwood, Charles E. Rider, Henry C. Maine, Adelbert Cronise, Samuel A. Lattimore, William Streeter, and Cyrus F. Paine, to me known to be the same persons described in and who executed the within instrument, and severally acknowledged that they executed the same in duplicate.

**S. McK. SMITH,**

Commissioner of Deeds, City of Rochester.

I, William Rumsey, one of the Justices of the Supreme Court of the Seventh Judicial District of the State of New York, within which the principal office of the Rochester Academy of Science shall be located, hereby approve the within certificate of incorporation, and consent to such incorporation and the filing of such certificate.

Dated May 12, 1881.

(Signed)

**WILLIAM RUMSEY,**

Justice Supreme Court.

Filed and recorded in the office of the Clerk of the County of Monroe, at Rochester, N. Y., and the office of the Secretary of State at Albany, N. Y., May 14, 1881.



# Constitution and By-Laws.



## CONSTITUTION

### ARTICLE I.

#### NAME.

This organization shall be called the ROCHESTER ACADEMY OF SCIENCE.

### ARTICLE II.

#### OBJECT.

The object of the organization shall be to promote scientific study and research, and especially a thorough knowledge of the natural history of that part of the State of New York in the vicinity of Rochester, and to make permanent collections of objects illustrative of the different branches of science.

### ARTICLE III.

#### ACTIVE MEMBERS.

Any person interested in science may be made an active member by a two-thirds vote at any regular meeting, and the payment of an initiation fee of two dollars.

## ARTICLE IV.

## HONORARY MEMBERS.

Persons of reputation for scientific research shall be eligible as honorary members. Any name proposed for honorary membership shall be referred to a committee of three, who shall, if satisfactory, report the same at a future meeting, and upon receiving a two-thirds vote of the members present, the person named shall be admitted to all the privileges of the Academy, except the right to vote.

## ARTICLE V.

## PATRONS.

Any person who shall aid the Academy in the pursuit of scientific research, by gifts of scientific collections, valuable books, pecuniary or other valuable assistance, may, upon the suggestion and recommendation of the Board of Directors and a two-thirds vote of the Academy, be elected as patron, with all the privileges of the Academy except voting and holding office.

## ARTICLE VI.

## OFFICERS.

The officers of the Academy shall be a President, a Vice President, a Secretary, a Corresponding Secretary, a Treasurer, and a Board of three Trustees elected by ballot at the first meeting of each year, and holding office for one year. A majority of all the votes cast shall be necessary for an election, and the officers elect shall enter upon the duties of their offices at the next ensuing meeting of the Academy. In case of a vacancy in any office, it may be filled at any regular meeting.

The several officers shall together constitute a Board of Directors.

## ARTICLE VII.

## DUTIES OF OFFICERS.

The duties of the officers shall be such as usually belong to their several offices.

It shall be the duty of the Treasurer, at the close of his term of office, when he makes his report for the year then ending, to report also an estimate of expenses for the ensuing year.

The Trustees shall be custodians of the property of the Academy

## ARTICLE VIII.

## DUES.

The active members of the Academy shall pay an annual assessment of one dollar.

## ARTICLE IX.

## ARREARAGES.

If any member shall be in arrears for assessments more than two months, notice shall be served upon him by the Treasurer; and if his dues shall remain unpaid for one month thereafter, his name shall be dropped from the list of members.

## ARTICLE X.

## AMENDMENTS.

This Constitution may be amended by a two-thirds vote at any two consecutive meetings.

# BY-LAWS.

## ARTICLE I.

### REGULAR MEETINGS.

The regular meetings of this Academy shall be held on the second Monday in each month, at 8 o'clock P. M. Notice of the time and place of meeting shall be given by the Secretary in such manner as the Board of Directors shall decide. There shall be twelve regular meetings of the Academy each year.

## ARTICLE II.

### SPECIAL MEETINGS.

Special meetings may be called by the President on the written request of any three active members. Notice of such special meetings shall be given by the Secretary as in the case of regular meetings.

## ARTICLE III.

### QUORUM.

Twenty five active members shall constitute a quorum for the transaction of business at any regular or special meeting.

## ARTICLE IV.

### APPOINTMENTS.

The President shall at each meeting announce, as far as possible, the programme for the next meeting, and shall appoint twenty

members, taken alphabetically from the list of members, who shall exhibit objects under the microscope, or such other objects of scientific interest as they may select. This provision shall not prohibit the exhibition at any time of objects or accessories by any other member.

## ARTICLE V.

### DESCRIPTION OF EXHIBITS.

Members appointed to exhibit objects, and members volunteering exhibits, may be called upon to describe the objects and state any interesting facts connected with them, such as natural history, locality, method of preparation, etc.

## ARTICLE VI.

### PREPARATION OF PAPERS.

All papers and reports in writing shall be upon sermon paper, eight by ten inches in size, written on one side, and shall be filed with the Secretary for preservation.

## ARTICLE VII.

### ORDER OF BUSINESS.

1. Reading minutes of previous meeting.
2. The stated programme of the evening and discussions thereon.
3. Reports of Sections.
4. Communications.
5. Miscellaneous business.
6. Election of members.
7. Announcements by the President.
8. Description of exhibits by exhibitors.
9. Adjournment to examine exhibits.

## ARTICLE VIII.

## SECTIONS.

The Academy may be divided into Sections as occasion may arise, for the purpose of promoting various lines of study.

The work of these Sections shall be reported at the regular monthly meetings of the Academy.

## ARTICLE IX.

## FORMATION OF SECTIONS.

Sections may be formed on motion. The President shall appoint one or more members, according to their choice of studies, to organize a Section that may be proposed.

Sections may adopt rules for their own government.

## ARTICLE X.

## RECEPTIONS.

The Academy shall hold one reception in each year, at which the work of the various Sections shall be represented.

## ARTICLE XI.

## PROPOSITIONS FOR MEMBERSHIP.

No proposition for membership shall be acted upon unless accompanied by the initiation fee of two dollars, and the full address of the applicant.

## ARTICLE XII.

## AMENDMENTS.

By Laws may be amended or enacted by a two-thirds vote at any regular meeting of the Academy.

# Officers and Members.

## OFFICERS.

*President*—MYRON ADAMS

*Vice-President*—H. F. ATWOOD

*Treasurer*—CHAS. E. RIDER

*Secretary*—H. C. MAINE

*Corresponding Secretary*—ADELBERT CRONISE

*Trustees*—S. A. LATTIMORE, WILLIAM STREETER, C. F. PAINE



## ACTIVE MEMBERS.

Abbey, A. M., -	146½ West Main St.
Adams, Rev. Myron,	4 Livingston Park.
Allen, Fred. P., -	23 Park Av.
Allen, Prof. J. G.,	4 Tappan St.
Alling, C. E.	42 Adams St.
Alling, Joseph T.,	74 Fitzhugh St.
Allis, James W.,	59 Caledonia Av.
Andrew, F. D.,	50 Hamilton Place.
Annin, James, Jr.,	Caledonia, N. Y.

Atwood, H. F.,	50 Hamilton Place.
Bausch, Edward,	183 North St. Paul St.
Bausch, Edward E.,	205 North St. Paul St.
Bausch, John J.,	5 St. Joseph St.
Blythe, James M.,	22 Chestnut St.
Brownell, Rev. J. T.,	Lyons, N. Y.
Bunker, Robert,	14 Jay St.
Cables, James H.,	2 Sophia St.
Cables, Mrs. Josie W. B.,	2 Sophia St.
Chapman, Miss E. Augusta,	18 Tremont St.
Chase, E. A.,	254 North St. Paul St.
Church, Frederic H.,	17 North Clinton St.
Clark, C. H.,	6 Tracy Park.
Clarke, Sherman,	110 Alexander St.
Coit, Rev. C. P.,	94 Hudson St.
Cogswell, Miss Frances H.,	East Av., c. Prince.
Cronise, Adelbert, A. M.,	22 Chestnut St.
Daniels, Miss L. M.,	135 Frank St.
Darrow, C. E., A. M., M. D., -	74 East Av.
Davis, Miss Kate B.,	123 Monroe Av.
Dransfield, Thomas, A. M.,	13 Myrtle Hill Park.
Dumond, A. M.,	49 Mount Hope Av.
Elgin, Rev. William,	85 Tappan St.
Elliott, Geo. W., A. M.,	3 East Av.
Ellis, Mrs. D. C.,	186 East Main St.
Ellis, Prof. S. A., A. M.,	7 Clifton St.
Elwood, Geo. M.,	17 North Clinton St.
Erbe, Gustave, -	12 Marietta St.
Farley, Porter, M. D.,	62 Fitzhugh St.
Fish, George T.,	89 Alexander St.
Fish, Mrs. E. Louise V.	89 Alexander St.



Fisher, J. H.,	106 Mount Hope Av.
Forbes, Prof. Charles, M. D., -	18 Tremont St.
French, Frank, D. D. S.,	4 Greig Place.
Gilbert, Mrs. Hattie H.,	217 East Main St.
Gilbert, H. Roy,	11 Jay St.
Goodger, John H.,	56 Bolivar St.
Goss, John W., -	19 Goodman St.
Greenleaf, H. S.,	Goodman St.
Griffith, E. H.,	Fairport, N. Y.
Gutmann, Max L.	27 North Clinton St.
Harris, Gorton, -	2 Norton St.
Hartwell, F. W., M. D.,	19 South Union St.
Hastings, A. M.,	9 Phelps Av.
Hawley, Frank W.,	8 Arnold Park.
Hough, Benj. O.,	155 Alexander St.
Hough, Mrs. D. M.,	155 Alexander St.
Hovey, B. L., M. D.,	35 Fitzhugh St.
Huntington, Henry F., -	West Av., c. Colvin.
Hurd, Miss Ada,	62 Sophia St.
Kenyon, C. A. -	50 Chestnut St.
Kiehel, C. D., A. M.,	46 Elwood Block.
Lamberton, A. B.,	15 Lamberton Park.
Landsberg, Rev. Max,	15 North Clinton St.
Langworthy, H. H., M. D.,	79 State St.
Lansing, R. H., -	6 Centre Park.
Lattimore, Miss Alida, -	29 Prince St.
Lattimore, S. A., Ph.D., LL.D.,	29 Prince St.
Learned, Wm. H.,	28 Orange St.
Leckenby, Alfred B., -	20 Vick Park A.
Levi, Joseph N.,	36 North Clinton St.
Light, George E.,	Pittsford, N. Y.

Line, J. Edw., D. D. S.,	18 Rowley St.
Lomb, Henry,	66 Meigs St.
Lowe, H. N., D. D. S.,	27 Elizabeth St.
Lowry, Mrs. Anna M.,	23 South Union St.
Maine, Henry C., A. M.,	64 Scio St.
Mallory, M. L., M. D.,	33 Fitzhugh St.
Mandeville, F. A., M. D.,	32 North Av.
Mann, Rev. N. M.,	73 Meigs St.
Martin, Hosea,	84 West Av.
Mathews, Robert,	28 Spring St.
McCollough, Mrs. Alice A.,	East Av., c. Goodman.
McDonald, Henry M.,	43 Rowley St.
McGuire, Horace,	23 Tremont St.
McMath, E. A., -	10 South Washington St
Merrill, Miss Lottie,	72 Court St.
Merriman, C. C.,	East Av. c. Goodman.
Moore, R. M., M. D.,	63 Fitzhugh St.
Morgan, A. A., D. D. S.,	9 Princee St.
Morse, W. G.	15 Arnold Park.
Munroe, W. C., M. D.,	180 East Main St.
Newman, A. B.,	Fairport, N. Y.
Osgood, H. L.,	10 Livingston Park.
Paine, Cyrus F.,	East Av.
Parsons, Theron E.,	29 Clinton Place.
Phinney, F. D.,	4 Brighton Av.
Phinney, Prof. H. K., A. M.,	4 Brighton Av.
Pierce, Prof. S. C.,	26 Greig Place.
Post, Miss Mary A.	Post St.
Raines, Thomas,	91 Alexander St.
Rebasz, W. M., -	21 Adams St.
Richards, Daniel, M. D.,	Marion, N. Y.

Rider, Charles E., M. D.,	60 Fitzhugh St.
Roe, John O., M. D., -	17 North Clinton St.
Schlicht, Paul J.,	43 South Union St.
Seelye, Charles W.,	5 Arlington St.
Selden, Geo. B.,	21 Grove St.
Sexton, Prof. Lewis R.,	1 Pearl St.
Sheehan, Wm. F., M. D.,	45 Lake Av.
Smith, S. McK.,	84 East Av.
Southworth, E. P.,	69 East Av.
Southworth, J. W., M. D.,	35 York St.
Spencer, Thos. D., M. D.,	58 East Av.
Sprague, Myron W.,	16 James St.
Stewart, John A.,	42 Sophia St.
Stewart, Mrs. John A.,	42 Sophia St.
Streeter, James,	20 Sophia St.
Streeter, William,	11 Scio St.
Streeter, Mrs. William,	11 Scio St.
Summers, H. E.,	4 Stillson St.
Sumner, C. R., M. D.,	14 South Clinton St.
Taft, F. E.,	76 East Av.
Thayer, H. G., -	18 James St.
Thayer, John M.,	18 James St.
Turner, Henry H.,	28 Sophia St.
Turver, W. W., M. D.,	Francis, c. Marion.
Vredenburgh, E. H.,	93 Fitzhugh St.
Walker, C. E., M. D.,	West Henrietta, N. Y
Walker, Godfrey, M. D.,	8 State St.
Wallace, Geo. A., M. D.,	18 North Clinton St.
Wallis, Edward, Jr.,	50 Alexander St.
Weaver, Simon J.,	Monroe Av.
Webster, Frederic S.,	112 University Av.

Wehle, John W.,	29 Mumford.
Westervelt, Prof. Z. F.,	263 North St. Paul St.
Wheeler, J. P., M. D.,	Brighton, N. Y.
White, H. M.,	Castile, N. Y.
Wilburn, T. B., M. D.,	39 Meigs St.
Wilson, J. C.,	6 Masonic Block.
Wray, Miss Ella A.,	44 Troup St.
Yawman, Philip H.,	16 Lawrence St.
Yeoman, Geo. F.,	62 Meigs St.

## HONORARY MEMBERS.

Benedict, N. W., D. D.,	19 East Av.
Blackham, Geo. E., M. D.,	Dunkirk, N. Y.
Hamlin, F. M., M. D.,	Auburn, N. Y.
Lewis, Miss Grace Anna,	Philadelphia, Pa.
Moore, E. M., M. D.,	63 Fitzhugh St.
Robinson, C. E., D. D.,	39 Plymouth Av.
Strong, A. H., D. D.,	33 South Clinton St.
Veeder, Rev. M. A.,	Lyons, N. Y.
Wilkinson, W. C., D. D.,	Tarrytown, N. Y.
Wray, Henry, Jr.,	44 Troup St.

# Supplement to Catalogue of Exhibits.

## SECTION OF MICROSCOPY.

The following objects were prepared and mounted by Prof. Albert H. Chester at the Hamilton College Chemical Laboratory, and have been loaned by him for this exhibition. They comprehend a series of slides showing the forms of crystallization of several metals, some of them crystallized by different processes.

The objects arrived too late to be described in the general list.

### Lewis R. Sexton.

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Silver, native, Batopilas, Mexico, Gundlach's 4 in.  $\times$  14  
Crystallized Copper, surface oxidized, Gundlach's 4 in.  $\times$  14

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Silver, precipitated by phosphorus, Gundlach's 3 in.  $\times$  17  
Crystallized Tin, prismatic form, Gundlach's 3 in.  $\times$  17

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Silver, Augustine process, Gundlach's 3 in.  $\times$  17  
Crystallized Tin, battery deposit, Gundlach's 3 in.  $\times$  17

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Wire Silver, native, Caribou, Col., Gundlach's 3 in.  $\times$  17  
Crystallized Gold, with Quartz, Gilpin Co., Col., Gundlach's 3 in.  $\times$  17

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE, No. 1.

Crystallized Boron, Gundlach's 2 in.  $\times$  20  
Crystallized Copper, Hunt & Douglas process, Gundlach's 2 in.  $\times$  20

#### GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Silicon, Gundlach's 2 in.  $\times$  20  
Crystallized Gold, native, Gilpin Co., Col., Gundlach's 2 in.  $\times$  20

GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Platinum with Gold and Magnetite, Baracoa, Cuba,	Gundlach's 2 in. × 20
Crystallized Blende on Gold, Boulder Co., Col.,	Gundlach's 2 in. × 20

GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Platinum,	Gundlach's 1½ in. × 30
Crystallized Copper, native, Ward, Col.,	Gundlach's 1½ in. × 30

GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Lead,	Gundlach's 2 in. × 20
Crystallized Copper, precipitated by Iron,	Gundlach's 2 in. × 20

GUNDLACH'S PHYSICIAN'S MICROSCOPE No. 1.

Crystallized Tin, from a "tin-tree,"	Gundlach's 1½ in. × 30
Crystallized Cadmium,	Gundlach's 1½ in. × 30

GUNDLACH'S STUDENT'S MICROSCOPE.

Crystallized Tin, octahedral forms,	Gundlach's 1½ in. × 30
Crystallized Gold, fern-leaf form,	Gundlach's ⅔ in. × 80

GUNDLACH'S STUDENT'S MICROSCOPE.

Crystallized Silver, Ziervogel process,	Gundlach's ¾ in. × 70
Crystallized Gold, prismatic forms, detached,	Gundlach's ¾ in. × 70

GUNDLACH'S STUDENT'S MICROSCOPE.

Crystallized Silver, battery deposit,	Gundlach's ⅔ in. × 80
Crystallized Gold, prismatic forms, in mass,	Gundlach's ⅔ in. × 80

GUNDLACH'S STUDENT'S MICROSCOPE.

Crystallized Silver, battery deposit,	Gundlach's ⅔ in. × 80
Crystallized Gold, battery process, <i>vide Amer. Jour.</i> <i>of Sci.</i> , July, 1878,	Gundlach's ⅔ in. × 80

GUNDLACH'S PHYSICIAN'S MICROSCOPE.

Crystallized Chromium, stellar form, Wohler's process,	Gundlach's ⅔ in. × 130
Nickel, battery deposit,	Gundlach's 3 in. × 17



